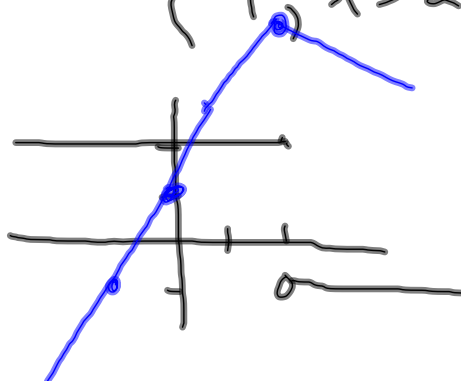


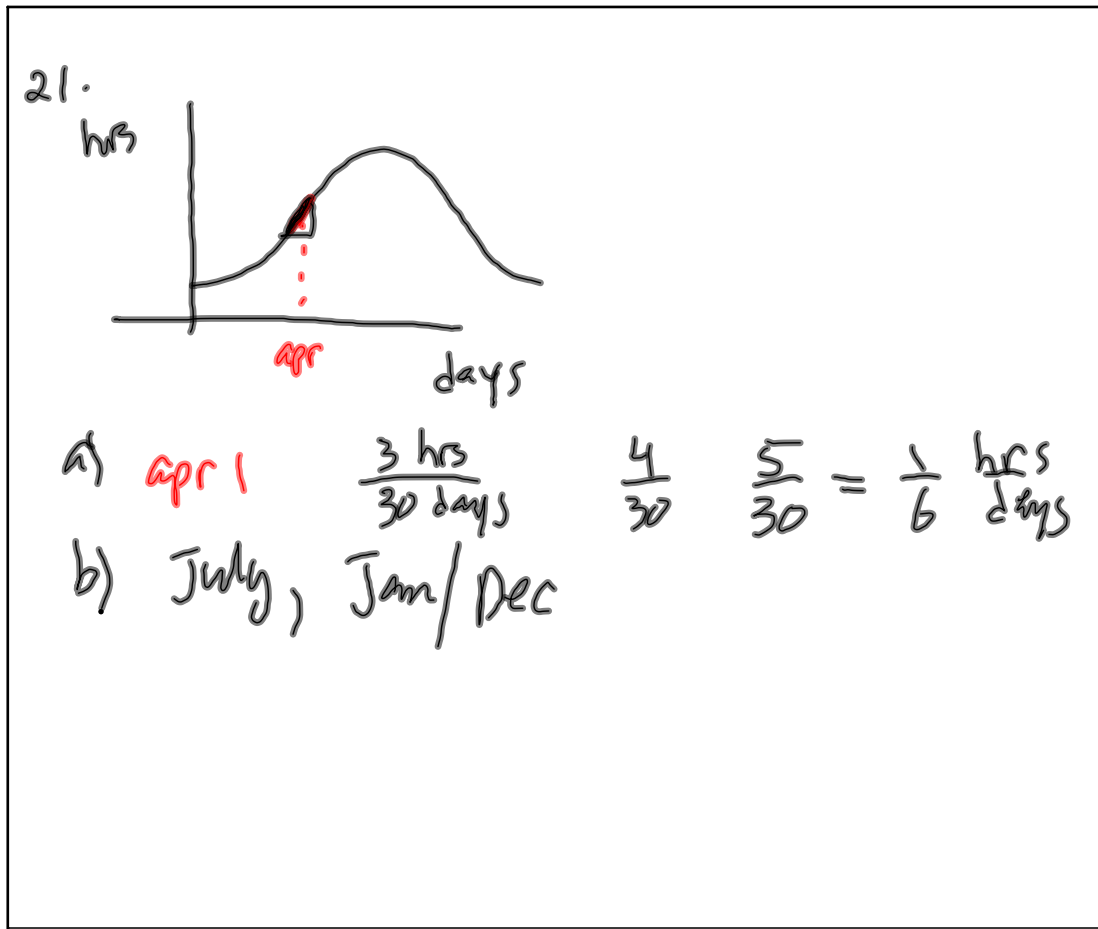
Sep 9-9:26 AM

28 given: f' find: $y=f(x)$
 $f(0)=1$
 $(0, 1)$

$$f'(x) = \begin{cases} 2, & x < 2 \\ -1, & x > 2 \end{cases}$$

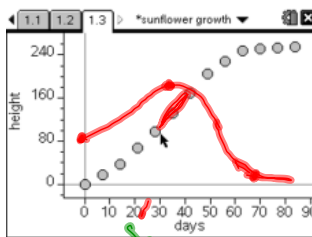


Sep 9-9:37 AM



3.1b Derivative as a function - numerically and algebraically

Sunflower growth

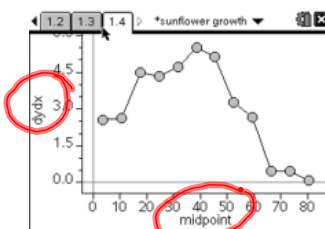


days	height	midpoint
0	0.	3.5
7	17.93	10.5
14	36.36	17.5
21	67.76	24.5

$C1 = \frac{a2-a1}{2}$

days	height	midpoint	dydx
0	0.	3.5	2.56143
7	17.93	10.5	2.63286
14	36.36	17.5	4.48571
21	67.76	24.5	4.33429

$D1 = \frac{b2-b1}{a2-a1}$



When is the sunflower growing the fastest?

at about 40 days
graph is steepest

sketch the derivative

use "fill" to
fill column

Sep 9-10:16 PM

do Ex 5 p 103 Table 3.1

people	prob

HWK

do 29, 30

Save in your
calc, copy on
your paper

②

Test corrections
due mon.

Sep 9-10:17 AM

Find the derivative of $1=1/x$ at $x=1$

Sep 9-10:41 PM

Find the derivative of $y = \sqrt{x+2}$ at $x=7$

Sep 10-11:27 AM

One-sided derivatives

Show that the following function has a left hand and a right hand derivative at $x=0$, but no derivative there.

$$f(x) = \begin{cases} x^2 & x \leq 0 \\ 2x & x > 0 \end{cases}$$

Sep 10-11:33 AM